



Db 1 GATCCACGCTGTACAGAGTCACTGTCGCTTCTGTAGAGCGCGAGTGTCAAC 60  
 Oy 61 GCGAGATCTCTCTTTGTGATGTGAGGTCAAGTGTGTAAGTTTCCCTGCGCGG 120  
 Db 61 CCGACGATCTCTCTTTGTGATGTGAGGTCAAGTGTGTAAGTTTCCCTGCGCGG 120  
 Oy 121 ATTTTCGCGCTGCGGCTTCTCTCGGCTGTGCGGTTGCGTTTGGCGGTGTGCGAGCAC 180  
 Db 121 ATTTTCGCGCTGCGGCTTCTCTCGGCTGTGCGGTTGCGTTTGGCGGTGTGCGAGCAC 180  
 Oy 181 GCCGAGCGATCCCAATGAGGGCAAGGCAAGACCGAGCCGATGCACTGCGGTGCGC 240  
 Db 181 GCCGAGCGATCCCAATGAGGGCAAGGCAAGACCGAGCCGATGCACTGCGGTGCGC 240  
 Oy 241 GATGGGGTACGCGGATGAGGGCGTGGCGTCCCGCCCGGACAGAACCGGATGCGAATAG 300  
 Db 241 GATGGGGTACGCGGATGAGGGCGTGGCGTCCCGCCCGGACAGAACCGGATGCGAATAG 300  
 Oy 301 GTACAGGTGCGACATGTGCGCGTACCGCGGACCGGATGACAAAGGTGGGTGCGCGGTC 360  
 Db 301 GTACAGGTGCGACATGTGCGCGTACCGCGGACCGGATGACAAAGGTGGGTGCGCGGTC 360  
 Oy 361 GCTGTGAGCTGCGGCTGCGCTGTGATCATGAGGAACGATCCCACTTCCCGCATC 420  
 Db 361 GCTGTGAGCTGCGGCTGCGCTGTGATCATGAGGAACGATCCCACTTCCCGCATC 420  
 Oy 421 GACGCGATGCGGAGCGAGCGCGCGCGGACCGCTGTGTGTGAGCGCGGACGATTCGCG 480  
 Db 421 GACGCGATGCGGAGCGAGCGCGCGCGGACCGCTGTGTGTGAGCGCGGACGATTCGCG 480  
 Oy 481 CATACGCTGCTGCAATGCGCAGCGCATGTGTCAATCCGCCAATGACAGATGACAC 540  
 Db 481 CATACGCTGCTGCAATGCGCAGCGCATGTGTCAATCCGCCAATGACAGATGACAC 540  
 Oy 541 ATGACAGAGGATGTGATCTGTGATATGATGATGATGATGATGATGATGATGATGATGAT 600  
 Db 541 ATGACAGAGGATGTGATCTGTGATATGATGATGATGATGATGATGATGATGATGATGAT 600  
 Oy 601 CGGAGGTGAGCGCATGTATGCGGTAGGTGGCGCTCCAGCGCTGGGCTGACATGCGCTG 660  
 Db 601 CGGAGGTGAGCGCATGTATGCGGTAGGTGGCGCTCCAGCGCTGGGCTGACATGCGCTG 660  
 Oy 661 CTGCGAATCTTGAACAGTGTGTAAGCGCGCATCTCCCAACCGATGGAGTCGT 720  
 Db 661 CTGCGAATCTTGAACAGTGTGTAAGCGCGCATCTCCCAACCGATGGAGTCGT 720  
 Oy 721 CCCATTAAGTTTCGTCTCAACAGATCGGTGCGCTCATGATCAAGTGAAGAGT 780  
 Db 721 CCCATTAAGTTTCGTCTCAACAGATCGGTGCGCTCATGATCAAGTGAAGAGT 780  
 Oy 781 ACCGGGGAAGAACAGCGGGGGAAGAACCAACCGGGGATTTGGCGCTGCGCATTTGGG 840  
 Db 781 ACCGGGGAAGAACAGCGGGGGAAGAACCAACCGGGGATTTGGCGCTGCGCATTTGGG 840  
 Oy 841 GCGAGTGCCTGCTCGCGGGTGTGATGCTGCGGGTGTGCGGTGTGCTGCGGTGTGCGATT 900  
 Db 841 GCGAGTGCCTGCTCGCGGGTGTGATGCTGCGGGTGTGCGGTGTGCTGCGGTGTGCGATT 900  
 Oy 901 GGTTCGCGCACTGCGCAACTGACCGGTGCGCGCGCGGTGCGCGCGCGCGCGCTA 960  
 Db 901 GGTTCGCGCACTGCGCAACTGACCGGTGCGCGCGCGGTGCGCGCGCGCGCGCTA 960  
 Oy 961 TTGGCACAAGAGGGCGCGGAGATCTGGAACGGAACAGTGTGCGGATGCGATTCGCGG 1020  
 Db 961 TTGGCACAAGAGGGCGCGGAGATCTGGAACGGAACAGTGTGCGGATGCGATTCGCGG 1020  
 Oy 1021 CATCACTGTTGGTTCGAAACTGCAATTAAGTGTGCAAGTGTCTGTGCAAGCGCA 1080  
 Db 1021 CATCACTGTTGGTTCGAAACTGCAATTAAGTGTGCAAGTGTCTGTGCAAGCGCA 1080  
 Oy 1081 CTACCGAGATGCTGACAGATTAAGTGTGCTGCTGCTACCAACATTCGCGTGCCTA 1140  
 Db 1081 CTACCGAGATGCTGACAGATTAAGTGTGCTGCTGCTACCAACATTCGCGTGCCTA 1140

Db 1081 CTACCGAGATGCTGACAGATTAAGTGTGCTGCTGCTACCAACATTCGCGTGCCTA 1140  
 Oy 1141 CTGACGACATTTCTCAAGCGCGGACCATGCCGAACAGCATATTTTACAGATGAA 1200  
 Db 1141 CTGACGACATTTCTCAAGCGCGGACCATGCCGAACAGCATATTTTACAGATGAA 1200  
 Oy 1201 TCAGAGCTGAGAGGTCTGACGTCTTTCAGGTATGAGCAAAATCTGCTGATACGCGG 1260  
 Db 1201 TCAGAGCTGAGAGGTCTGACGTCTTTCAGGTATGAGCAAAATCTGCTGATACGCGG 1260  
 Oy 1261 TCAGATGCGCTGCGCATATTTCTTACCGCCACCGACCGAATTCGCGGAGTGGC 1320  
 Db 1261 TCAGATGCGCTGCGCATATTTCTTACCGCCACCGACCGAATTCGCGGAGTGGC 1320  
 Oy 1321 GCTGTGTACACGAGAGCGCTCTGAGGCTGACGTTTCCGACTGCAAGCGCTGCGC 1380  
 Db 1321 GCTGTGTACACGAGAGCGCTCTGAGGCTGACGTTTCCGACTGCAAGCGCTGCGC 1380  
 Oy 1381 GCAAGCTACAAAGGAACCGGACGCTGCTGCGCTTTCAGTTCGACAAAGCGCATGA 1440  
 Db 1381 GCAAGCTACAAAGGAACCGGACGCTGCTGCGCTTTCAGTTCGACAAAGCGCATGA 1440  
 Oy 1441 CCGGCTGCTGCGGCTGCGCGCATTCGAGCATGACTGCGATTCGCGCGCGCGC 1500  
 Db 1441 CCGGCTGCTGCGGCTGCGCGCATTCGAGCATGACTGCGATTCGCGCGCGCGC 1500  
 Oy 1501 CGGAAAGCGGTGCTGCGGATTCGGAACCTGCTCATTTTGTGGAAGTGTGCAAG 1560  
 Db 1501 CGGAAAGCGGTGCTGCGGATTCGGAACCTGCTCATTTTGTGGAAGTGTGCAAG 1560  
 Oy 1561 CTACAAAGGATCTCTACTGTGTGGGCGGCACTTCGAGGAGACCGGCGCATCCCGT 1620  
 Db 1561 CTACAAAGGATCTCTACTGTGTGGGCGGCACTTCGAGGAGACCGGCGCATCCCGT 1620  
 Oy 1621 GCTGTGAACTGCGGCAACCGCTGTGTACTCGGCGGACGACTACCGGACGACGCTCTA 1680  
 Db 1621 GCTGTGAACTGCGGCAACCGCTGTGTACTCGGCGGACGACTACCGGACGACGCTCTA 1680  
 Oy 1681 CCGGAGAGCGGTTCAGCGATTCGACCTTCCGCAACATGCGCGGATCTGGAACAA 1740  
 Db 1681 CCGGAGAGCGGTTCAGCGATTCGACCTTCCGCAACATGCGCGGATCTGGAACAA 1740  
 Oy 1741 GAATGGGATACCTCTTCATCAATGAAATTCGACCGGTATGCTGGGCGAATTCGCTAC 1800  
 Db 1741 GAATGGGATACCTCTTCATCAATGAAATTCGACCGGTATGCTGGGCGAATTCGCTAC 1800  
 Oy 1801 GACACTGCAATCCAGACCGACGAGCGTGTGAAGACGCTGCTCAATCAAGCGC 1860  
 Db 1801 GACACTGCAATCCAGACCGACGAGCGTGTGAAGACGCTGCTCAATCAAGCGC 1860  
 Oy 1861 GACCGCGAATACGATGCGGACAGCTTCCAGTGAACCTTGTGTCTGGAACCGCGATT 1920  
 Db 1861 GACCGCGAATACGATGCGGACAGCTTCCAGTGAACCTTGTGTCTGGAACCGCGATT 1920  
 Oy 1921 CCGGCAACAGAGGAAATTCGAAAGTGAATGCGGACAGCGTCCGACAGTAAAGACG 1980  
 Db 1921 CCGGCAACAGAGGAAATTCGAAAGTGAATGCGGACAGCGTCCGACAGTAAAGACG 1980  
 Oy 1981 CTATTCGCGCGCATCAAGTGTGATTTTGTGATCTGTCGCGCTGTGATGCTGCTAG 2040  
 Db 1981 CTATTCGCGCGCATCAAGTGTGATTTTGTGATCTGTCGCGCTGTGATGCTGCTAG 2040  
 Oy 2041 CAGTCAACCGTCCCGGTGCGGTGCGCGCTGCGGTGCGGACCGGTCGCGGAGTCCGAC 2100  
 Db 2041 CAGTCAACCGTCCCGGTGCGGTGCGCGCTGCGGTGCGGACCGGTCGCGGAGTCCGAC 2100  
 Oy 2101 GCCGACGCTACTCCGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGCTACTGCTAC 2160  
 Db 2101 GCCGACGCTACTCCGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGCTACTGCTAC 2160  
 Oy 2161 GCCGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGCTACTGCTAC 2220  
 Db 2161 GCCGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGACGCGGCTACTGCTAC 2220

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/ STREET: 1617 Cole Boulevard
/ City: Golden
/ STATE: CO
/ COUNTRY: U.S.A.
/ ZIP: 80401-3393
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBC PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: ASC II (DOS) text
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/604,913B
/ FILING DATE:
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 08/276,213
/ FILING DATE: 15-070-1994
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Edna M. O'Connor
/ REGISTRATION NUMBER: 29,252
/ REFERENCE/DOCKET NUMBER: 95-56
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 303/384-7573
/ TELEFAX: 303/384-7499
/ INFORMATION FOR SEQ ID NO: 12:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 2293 base pairs
/ TYPE: nucleic acid
/ STRANDEDNESS: double
/ TOPOLOGY: linear
/ MOLECULE TYPE: DNA
/ FEATURE:
/ NAME/KEY: E1-CAT
/ US-08-604-913B-12

Query Match: 76.0%; Score 2283.4; DB 1; Length 2293;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 2287; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 GGATCCAGCTGTTCAGAGTCACTGTCCTGCTTCTGTGTAGACCGCGGATGCTCAC 60
DB 1 GGATCCAGCTGTTCAGAGTCACTGTCCTGCTTCTGTGTAGACCGCGGATGCTCAC 60
QY 61 CGCAGATCTCTCTTTGTGATGTCGACGGTCAAGTAAAGGTTTGCCTCGGCGCG 120
DB 61 CGCAGATCTCTCTTTGTGATGTCGACGGTCAAGTAAAGGTTTGCCTCGGCGCG 120
QY 121 ATTTTCGCGCTCGGCGCTTGCTCGGCTGTGCGGTTTGGTTTGGTGTGCGAGCAC 180
DB 121 ATTTTCGCGCTCGGCGCTTGCTCGGCTGTGCGGTTTGGTTTGGTGTGCGAGCAC 180
QY 181 GCCGAGCGCATCCCAATGAGGGGCAAGGGCAAGCGGATGGACATGCTCGGCTGCC 240
DB 181 GCCGAGCGCATCCCAATGAGGGGCAAGGGCAAGCGGATGGACATGCTCGGCTGCC 240
QY 241 GATGGGGTACGCCGATGGGGCGTGCGCTCCCGCGCGGACAGAAACCGATGCGGAATAG 300
DB 241 GATGGGGTACGCCGATGGGGCGTGCGCTCCCGCGCGGACAGAAACCGATGCGGAATAG 300
QY 301 GTACAGGTGTGAGATGTTGCGGTCATCCGCGGACCCCGATGACAAAGGTGCGCGGTC 360
DB 301 GTACAGGTGTGAGATGTTGCGGTCATCCGCGGACCCCGATGACAAAGGTGCGCGGTC 360
QY 361 GCCTGTGAGCTGCGGCTGCGCTGCTGATCATGGAAACGATCCACATTTCCCGCAATC 420
DB 361 GCCTGTGAGCTGCGGCTGCGCTGCTGATCATGGAAACGATCCACATTTCCCGCAATC 420
QY 421 GAGCGCATGCGGACGAGGGCGCGCAGCGCGATCGATCGATGATGACCGCGGATTCGCC 480
DB 421 GAGCGCATGCGGACGAGGGCGCGCAGCGCGATCGATCGATGATGACCGCGGATTCGCC 480
QY 481 CATACGCTGTGGAATGCCAGGCGCATGTTGTCAATCCGCCAAATGACGAATGCAC 540
DB 481 CATACGCTGTGGAATGCCAGGCGCATGTTGTCAATCCGCCAAATGACGAATGCAC 540

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